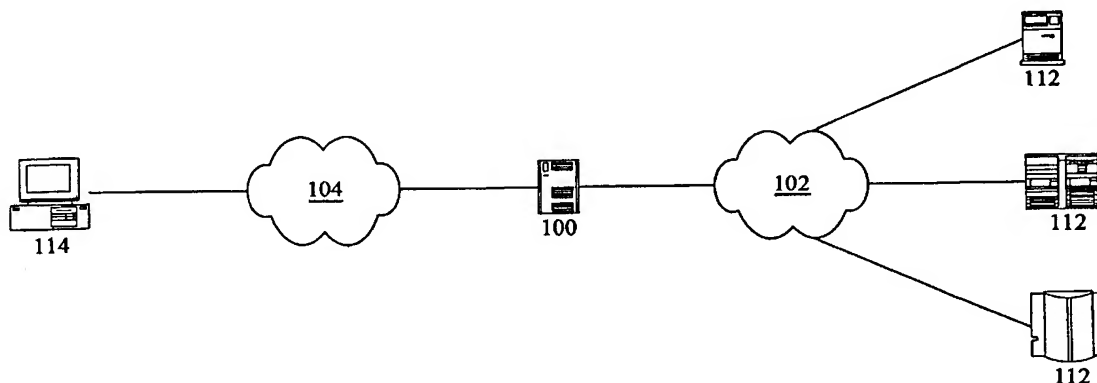




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(54) Title: A COMPUTERIZED METHOD AND SYSTEM FOR AUTOMATICALLY EMBEDDING CONTENT LINKS



## (57) Abstract

A computerized method and system (114) for modifying content with links is described. One embodiment of the method includes receiving content (114), receiving key words (114) and WebPages (104) associated with the key words, finding instances of the key words in the content, creating links (100) between the instances of the key words in the content and the WebPages (104) associated with the key words, and transmitting (102) the content with the links (100).

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Title: A COMPUTERIZED METHOD AND SYSTEM FOR  
AUTOMATICALLY EMBEDDING CONTENT LINKS

Inventors: Alan Ellman and Brian McGinty

**This application claims priority to U.S. Provisional Application  
serial number 60/131,159 filed on April 26, 1999**

Field of the Invention

The present invention relates to a computerized method and system for  
5 automatically embedding links into content. More particularly, the present  
invention relates to a method and system for automatically inserting commerce  
links into media, for example, that found in online product articles, reviews, and  
videos.

Description of Related Art

10 A user can use a browser to access various content on a variety of  
websites and WebPages on the Internet. This content may include articles  
discussing, reviewing, or even merely mentioning some product, such as book or  
a record, or object which may be associated with a product, such as an author's  
name or an image. As a result of reading such an article, the user may make an  
15 impulse-oriented decision to purchase or find out more information about  
available products.

To do so, the user may have to find the websites for an online  
vendor which offers the product, and then access the particular webpage for the  
product. To facilitate user access to product WebPages, facilitate product

purchases, and reduce loss of user interest, different approaches have been used.

One approach places near the content a banner or other control which links to the homepage of a website for an online vendor. Once at the website for the online vendor, this approach requires the user to re-enter search criteria in order to find the vendor's webpage for the particular product the user just read about. This approach also requires the user to leave the webpage where the content is located.

Another approach is to manually read articles and then attempt to place the appropriate commerce tags within the content. This approach is tedious and is not automatic. This approach must be performed by humans and may be incomplete, omitting important links.

There are "hyperlinked" documents which allow a user to highlight an object, and the associated programs will link the object to other documents. One example is documents coded in a standard Hypertext Markup Language (HTML) format. These documents are typically used in a world-wide computer network called the Internet. A user can use a browser to retrieve an HTML document from a remote server and display it on his computer. Typically, the display contains text and graphics, although it is possible to show sound and movie. These document have embedded links to other HTML documents. The user can click on predetermined locations of the document, and a predetermined HTML document will be retrieved from the same or another server. However, all

the links are built in the HTML document. The user cannot create a new link or alter the position and content of the embedded link.

Thus, there still remains a need in the art for a method and system to automatically insert transaction links in content such as online product articles,  
5 reviews and other media while remaining on the same WebPage where the content or other media is located. In addition, there remains a need to allow the creation of a new link or alteration of the position and content of the embedded link.

10

### SUMMARY OF THE INVENTION

The present invention avoids disadvantages of the prior art. One aspect of the invention involves a method for modifying content with links between key words and WebPages. One variant of the method comprises receiving content, key words, and WebPages associated with the key words. Instances are then  
15 found of the key words in the content. Links are automatically created between the instances of the key words in the content and the WebPages associated with the key words. The content with the links is then displayed to a user of the WebPage.

Another aspect of the invention involves a system for automatically embedding links into content. One variant of the system includes a database having data relating to content and profile information on at least one subscriber

site. A processor is in communication with the database and configured to match the profile with the content to provide filtered content to the subscriber site. The processor also provides automatic embedding of links into the filtered content to at least one commerce data source. A link is established that connects the processor to the subscriber site.

These aspects and other objects, features, and advantages of the present invention are described in the following Detailed Description which is to be read in conjunction with the accompanying drawings.

#### BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows a typical environment in which the method of the present invention may be practiced.

FIG. 2 shows a schematic flow diagram of one embodiment of a method and system for modifying content with links between key words and WebPages.

FIG. 3 shows a schematic flow diagram of another embodiment of a method and system for modifying content with links between key words and WebPages.

FIG. 4 illustrates a schematic block diagram depicting one embodiment of the system in the present invention.

FIG. 5 shows a schematic flow diagram of the embodiment of the system in Fig. 4.

FIG. 6 depicts a schematic block diagram depicting one embodiment of the system in the present invention.

FIG. 7 shows a schematic flow diagram of the embodiment of the system in Fig. 6.

5           FIG. 8 shows an example of a graphical user interface display illustrating an application of one aspect of the present invention.

FIG. 9 shows an example of a graphical user interface display illustrating another application of one aspect of the present invention.

10           FIG. 10 shows an example of a graphical user interface display illustrating one more application of one aspect of the present invention.

#### DETAILED DESCRIPTION

The present invention relates to a computerized method and system for automatically embedding content links. One typical example of a business  
15   relationship utilizing this invention is that relationship existing between a website offering commercial products for sale and someone using the website or an "end user". For purposes of this description, the term "subscriber website" is used interchangeably with the terms "website" or "WebPage".

The principles of the invention can be understood with reference to a  
20   system that selectively places commerce tags automatically within on-line content. These commerce tags or links enable the end user to purchase items while remaining in the originating website where the content was found.

Additionally, in some arrangements, a server application takes content, compares, and matches the content to key words across a wide array of databases. The filtered content is automatically embedded with links to purchase sites through the key words and presented to a subscriber site for review. The subscriber site is  
5 allowed to selectively choose what content goes on its site. In addition, the subscriber site can add, delete or alter the commerce tags automatically embedded in the filtered content.

In other arrangements, a Java based server application allows a website to receive streams of commerce enabled content as well as the ability to embed the  
10 website's own content with commerce tags. The term "content " as used throughout this description is meant to refer to any type of media, for example, text, image, acoustic recording, live recording, audio-visual image, or multimedia. In addition, the term "key word" refers to any type of media that may also be found within the content. For example, the key word may be a textual object such  
15 as a word, an image, an object, an acoustic recording, a live recording, an audio-visual image, or multimedia.

The embedded tags represent links that launch a new page directly to the purchase screen of that item. No longer does the end user have to drill down across a number of screens to get to the relevant purchase screen. In addition,  
20 no longer does the end user have to leave the originating site.

Adverting to the drawings, shown in FIG. 1 is an example of a typical environment in which the method of the present invention may be practiced. A



server **100** receives a large amount of content through an Internet or other network related communication link **102** from at least one content provider **112**.

Communication link **102** is preferably a data link. Such data link can alternatively be, but is not limited to, an electronic data link, optical fiber  
5 connection, wireless data connection or any other known connection used for data transfer, for example, over the internet. Depending upon the implementation, communication link **102** can operate in one or more modes of transmission. For example, such modes include radio frequency transmissions, optical transmission, microwave transmission, digital or analog transmission, or  
10 other known data transmission.

Server **100** depicts a network, mainframe computer, processor, in communication with or including an image storage/retrieval system, or a database of content as described herein. Server **100**, when specifically operating in accordance with the principles of the invention operates as a receiver, translator,  
15 processor, filter, storage, and distributor of content related data. The server receives content from the content provider and responds to requests from a subscriber website **114**. The server also filters content and automatically embeds the filtered content with commerce tags or links to other sites as discussed further below.

20 In one variant, content provider **112** may include news wire services, such as Associated Press, New York Times, or Reuters, or other providers of original or reproduced content, such as magazines, websites, and other media. In

another, the content provider may include broadcasters of sporting events, theatrical shows, musical concerts, and other entertainment related media.

Server **100** filters through this large amount of content, creates subsets of the content, and delivers this subset of content through an Internet or other  
5 network related communication link **104** to subscriber website **114**. Similarly, as with communication link **102**, communication link **104** can have various configurations depending upon the implementation. However, communication link **104** need not be the same, or bear any relation in type or mode, to a particular communication link **102** employed between the content providers and the server.  
10 Preferably, communication link **104** is a data link. However, as with communication link **102**, it is within the scope of the invention to include all other types of communication links known.

Subscriber website **114** illustrated in FIG. 1 depicts a network, mainframe computer, processor, or a database in communication with the server. In one  
15 implementation, the subscriber website can submit the content to the server and become the content provider. Preferably, the subscriber website can receive queries and retrieve information in response to the query. The subscriber website can be content specific, but does not necessarily need to be so for the present invention to properly function.

20 Server **100** creates a subset of the content according to criteria associated with each subscriber website **114**. This subset is created by the server filtering through the content and matching the content with the subscriber website's

criteria. This criterion or custom designed profile may include, for example, a list of subjects or search terms indicative of the kind of content in which the subscriber website is interested. The criterion may be modified by the subscriber website as often as needed. Server 100 minimizes or eliminates the need for

5 each subscriber website to search through a large amount of content in order to find content of interest. After the server has created this subset or filtered content, the server may present the filtered content to the subscriber website or automatically embed the filtered content with links. One implementation of this automatic link embedding is to use the search terms generated by or found in the  
10 profile of the subscriber website's as the linking member or key word. However, this linking member is not limited to such an implementation as previously described for the key word. Other implementations may include visual objects, multimedia, acoustical recording, live recording, and any other type of known media. In addition, it is within the scope of the invention that the linking member  
15 can be something other than the key word. For example, if content was filtered by the server using the key word "krypton", instead of embedding a link to the word krypton, a symbol or object may appear next to the word facilitating the link at the subscriber website. The profile of the subscriber website is typically stored with the server and used as a vehicle to filter the content. The objective of the filtering  
20 is to more custom design and suit the needs of the subscriber website in terms of providing content more relevant to the subscriber website.

FIG. 2 shows one embodiment of a method and system of the present invention for modifying content with links between key words and WebPages. As illustrated in the figure, a block **210** depicts receiving content from at least one content provider at the server. The server also receives at least one key word and at least one WebPage locations associated with the key words as shown in a block **220**. In the alternative, the server may receive just a key word or Webpage location. In these alternatives, the server may use the profile of the subscriber website to generate key words that would then be matched with the commerce data source locations or the subscriber website. Additionally, if key words are received from a subscriber website, the server could query and retrieve commerce data source locations, which would match the key words.

The server finds instances or occurrences of the key words in the content as shown in a block **230**. Again, depending on the implementation, the content may come from the content provider or the subscriber website or both. Links are created between the instances of the key words in the content and the WebPages associated with the key words as shown in a block **240**. The content is then presented to the subscriber website for review as shown in a block **250**. The subscriber website can selectively choose what content goes on the subscriber website. In addition, the subscriber is allowed to add, delete, and modify links in the filtered content after it has been received from the server. Alternatively, to linking key words to WebPages, the server can link key words to at least one commerce data source other than the subscriber website.

Content may be in the form of any one or a combination of media, such as by hardcopy, electronic media, facsimile, or any other media that can be transmitted over a data line or other know transmission means. The content may be any work capable of being archived and searched. For example, the content  
5 may be news articles provided by a live feed from a news service such as Associated Press, New York Times, or Reuters.

The principles of the invention can be implemented in several ways. In one implementation, when the server receives key words and WebPage locations associated with the key words, the key words may be provided by an advertiser or  
10 product provider. For example, a product database provided by an advertiser or product provider may be parsed or otherwise processes to obtain key words. In this implementation, instances of the key words are found in the content by the server. The server performs a comparison between the content and key words to find matches. The content may be hashed or otherwise processed in order to  
15 facilitate comparison to the key words. Additionally, the key words may be hashed or otherwise processed in order to facilitate comparison to the content. The content and the key words are then compared to find matches. The server places the matches in an index. Filter the matches may take place after the comparison is completed. Matches may be made using the subscriber website  
20 filters or the server filters.

In another implementation, each subscriber website provides criteria which is generated into a custom designed profile by the server. The profile may include

a list of subjects or search terms indicative of the kind of content in which the subscriber is interested. The server automatically creates links between the instances of the key words in the content and the WebPages associated with the key words or profile. The content is preferably not modified other than the  
5 embedded links. However, it is within the scope of the invention that the content may be modified and contain embedded links. Such modification may include for example, presenting a synopsis of the content instead of presenting the entire content. When the subscriber requests the content, the appropriate filter file is applied to the content to embed the links in the content before the content is sent  
10 to the subscriber. The server presents the content with the links and the content with the embedded links is sent to the subscriber website for review.

It is understood that the tasks shown in the figures presented in this description can be sequenced in any order to achieve the desired result.

Depending on the implementation, it is recognized that key words can be received  
15 prior to receiving the content. The order or sequence of tasks illustrated in the figures is merely intended to be exemplary of the concepts defined herein.

Examples of applications of such implementations include the following. A user is reading an article on the Internet, which includes the following sentence:

20 Truman Capote, worked diligently for many long and sleepless hours to complete his novel "In Cold Blood".

A link may be created to list books written by Truman Capote. Alternatively and or additionally, a link may be created to the book "In Cold Blood", taking the user directly to purchase WebPages on the website of an online book vendor. A link

may also be created to other products, such as audio versions of "In Cold Blood" and movie adaptations of "In Cold Blood".

A user is reading an article on the internet which includes the following sentence.

5                                   Curtis Mayfield, "New World Order", is his best work.

A link may be created to a list of books written by Curtis Mayfield, and/or a link may be created to the book "New World Order".

FIG. 3 illustrates a schematic flow chart of an additional variant, showing some of the features with the variants of FIGs. 1 and 2. A block **301** depicts the  
10   server receiving content. A block **302** illustrates a server receiving a profile from a subscriber website. The sequence of tasks can be accomplished simultaneously or at separate intervals depending on the implementation involved. The server filters the content using the profile received from the subscribers website as shown in a block **310**.

15                   The profile can contain a vast array of information about the subscriber website. For example, in one variant, it may contain a summary of the subject matter that the subscriber website contains, information about the subscriber website's users, key terms or words pertaining to the subscriber website, location of the subscriber website, target audience of the subscriber website, and other  
20   relevant information about the subscriber website that would enable the server to match and filter content pertaining specifically to the subscriber website.

Alternatively, upon receiving the profile, the server may generate key words using the profile. This generation of key words which would assist the server in the matching and filtering process it applies to the content. This process enables the server to take a vast amount of content and limit it to a smaller concentrated amount that is more pertinent to the subscriber website.

Additionally, the subscriber website could provide key words that apply to the content it desires to be shown. As with the other implementations, key words includes, but is not limited to, at least one of a textual object, an image, an object, a word, a character, an acoustic recording, a live recording, an audio-visual image, or multimedia. In one variant, the content described refers to at least one of a text, an image, an acoustic recording, a live recording, an audio-visual image, or multimedia.

A block **320** depicts the server matching and filtering the content by using the profile of the subscriber website. The subscriber website can receive only the filtered content if so desired as shown in a block **322**. However, the subscriber website can also be provided with the filtered content and automatically  
5 embedded commerce tags as depicted in a block **325**. In this implementation, the server automatically embeds the filtered content with links associated with the key words as shown in a block **324**.

In another implementation of FIG. 3, the server may eliminate the filtering and matching process. Under these conditions, the server may present for review  
10 to the subscriber website content automatically embedded with links pertaining to



the subscriber website. At this point, the subscriber website could selectively choose what content was to be displayed by utilizing its own filtering system at the subscriber website. Additionally, the subscriber website could offer just the vast array of content embedded with the commerce tags. However, this variant would  
5 not be preferred, since the content would not be specific to the subscriber website. Yet, the variant is still an option for the subscriber site.

FIG. 4 illustrates a schematic block diagram of an example system employing the principles of the present invention. A block **400** depicts a server that performs similar functions as previously described for the server in block **100**  
10 of FIG. 1. The server is connected to at least one content provider as shown in a block **410**. Block **410** performs similar functions as the content provider in block **112** of FIG. 1. The server and content provider are connected by a communication link **401**.

Also provided is at least one commerce data source **420**. The commerce  
15 data source includes a purchase site in which products are offered for sale. In this implementation, the commerce data source is connected to the server by a communication link **402**.

A block **430** illustrates at least one subscriber website. The subscriber website includes an originating site where it may present content supplied to it by  
20 the server. The subscriber website is further connected to an end user as shown in a block **440** by a communication link **431**. The end user further includes a

display **442** connected by communication link **441** for displaying the originating page.

Communication links **401**, **402** and **403**, and **431** and **441** are similar to link **102** such that they are preferably data links. However, the communication links in  
5 FIG. 4 need not be the same, or bear any relation in type or mode, to a particular communication link.

Commerce data source **420** in one implementation may include vendors, marketing resources, equipment suppliers, consulting services, bookstores, wholesalers, distributors, and other related merchants. The commerce data  
10 source can also be the subscriber website in another variant. Thus, the commerce data source may or may not be another party in the system.

FIG. 5 illustrates the operation of the example system employing the principles of the invention schematically defined in FIG. 4. Shown is a block **500** depicting a server. Also shown is a block **510**, which depicts at least one content  
15 provider. Typically, the server includes a parallel processing system denoted generally as a system **502**. The parallel processing system allows the server to quickly and efficiently process the content from the content provider and filter the vast amount of content to a concentrated smaller size. A block **520** and a block **530** represent commerce data sources which are also denoted as "A" and "B",  
20 respectively. Each commerce data source has a purchase site, which offers products, services and other goods for sale.

In this implementation, at least one subscriber website utilizes the server and for purposes of this description are denoted as a block **540**, a block **550**, and a block **560**. The subscriber websites will be referred to as SWS #1, SWS #2, and SWS #3, respectively. Each subscriber website includes an originating site  
5 where content or filtered content is displayed. At least one end user utilizes the originating site. The end users are denoted generally by the symbol "U" in FIG. 5 and are illustrated in this implementation to be specific to the subscriber website. However, it is recognized that an end user can use several subscriber websites under the principles of the present invention. For this illustration or example only,  
10 SWS#1 includes an end user **541** and an end user **542**. SWS#2 includes an end user **551** and an end user **552**. SWS#3 includes an end user **561** and an end user **562**.

An illustrative operation of the example system illustrated in FIG. 5 is as follows. The end user enters a query at the subscriber website. The query is  
15 entered at the subscriber website and is transferred to the server where the server filters content through the assistance of the parallel process system. Again, in other variants the parallel process system may be eliminated or substituted for other known means that assists in filtering content. The principles of the invention can be implemented in several ways. For example, several types  
20 of databases, either individually or in combination with each other, can be utilized in the system. Regardless of the implementation, the content is received by the

server. Additionally, in another variant, the content provider may include the subscriber website.

Based on the custom designed profile of each subscriber website, the content is filtered. The server may use known techniques such as Regular  
5 Expression Pattern Matching (REPM) to match keywords to the content in assisting the server to filter the content to a smaller concentrated amount. This filtered content is then automatically embedded with commerce tags or links to commerce data sources. For this illustration in FIG. 5, A and B, each have a purchase site that will allow the end user to purchase something related to its end  
10 user's query.

The filtered content with the embedded tags are retrieved by the subscriber website and displayed to the end user. The subscriber website then displays to the end user the filtered content with the embedded tags on the originating site. The end user is then allowed to initiate the embedded tag or link and obtain the  
15 purchase site within the originating site. Thus, the end user does not have to leave the originating site of the subscriber website in order to make a purchase at the purchase site.

Typically, a pop up window would be employed to display the purchase site within the originating site. However, other formats are also possible within the  
20 principles of the invention. For example, a side bar may appear on the side of the originating page allowing the end user access to the purchase site.

An alternative to the above implementation is that filter contents with the embedded tags already exist at the subscriber website. In this example the server has already sent the filtered content with the embedded tags to the subscriber website. The subscriber website may review the filtered content and  
5 edit any portion of it. For example, the subscriber website, may delete content, add content, or edit content. In addition, the subscriber website, may edit the commerce tag such that tags may be deleted, added or altered.

The subscriber website in one variant preferably includes a Java based application or other software supplied by the server at an originating site. This  
10 application allows the subscriber website to edit the embedded commerce tags received from the server. Editing the tags includes deletion, addition of new commerce tags, and altering the embedded tags in the content received from the server. In one variant, the subscriber website could embed other content found on its originating site website with commerce tags.

15 The commerce tags or links are preferably in Hypertext Markup Language (HTML), but need not to be so formatted for the principles of the invention to function. Any other known format that allows linkage from one website to another website may be utilized by the system described herein.

The system and method of the present invention also allows the subscriber  
20 website to selectively chose what content is displayed on its originating site. The subscriber, in addition to having the capability of choosing what content appears on its originating page also has other capabilities with regards to the filtered

content embedded with commerce tags. For example, the subscriber website can selectively choose what vendors or purchase sites will appear on its originating page.

As shown in FIG. 5, two commerce data sources are illustrated, A and B, each having purchase sites. The individual subscriber website can select which purchase site will be embedded in the content. Adverting to the example illustrated in FIG. 5, SWS#1 may select only the purchase site from A to be embedded into its filtered content that is received form the server. Whereas, SWS#2 may select only the purchase site from B to be embedded into its filtered content that is received form the server. SWS #3 may select both purchase sites to be embedded into its filtered content that is received from the server.

Again, this example is only illustrative of the underlying principles of the invention. FIG. 5 illustrates that the server enables the subscriber site, either through software or some other known means, to selectively choose the purchase locations related to the commerce tags which are automatically embedded into the filtered content.

FIG. 6 depicts a schematic block diagram where the subscriber website goes directly to the commerce data source. Instead of going through the server to connect to the commerce data source as shown in FIG. 4, in this implementation the subscriber website connects directly to the commerce data source. This system is preferred because it requires less processing time.

Shown in FIG. 6 is a block **600** depicting a server that performs similar functions as previously described for the server in block **100** of FIG. 1. The server is connected to at least one content provider as shown in a block **610**. Block **610** performs similar functions as the content provider in block **112** of FIG. 1. The  
5 server and content provider are connected by a communication link **601**.

Also provided is at least one commerce data source **620**. The commerce data source includes a purchase site in which products are offered for sale. In this implementation, the commerce data source is connected to the subscriber website by a communication link **602**.

10 A block **630** illustrates at least one subscriber website. The subscriber website includes an originating site where it may present content supplied to it by the server. The subscriber website is further connected to an end user as shown in a block **640** by a communication link **631**. The end user further includes a display **642** connected by communication link **641** for displaying the originating  
15 site of the subscriber website. When the embedded commerce tag or link is activated in the filtered content provided by the server, the purchase site appears inside the originating site.

Communication links **601**, **602** and **603**, and **631** and **641** are similar to link **102** such that they are preferably data links. However, the communication links in  
20 FIG. 6 need not be the same, or bear any relation in type or mode, to a particular communication link.

As in FIG. 4, the commerce data source in FIG. 6 may include in one implementation locators connecting to vendors, marketing resources, equipment suppliers, consulting services, bookstores, wholesalers, distributors, and other related merchants. The commerce data source can also be the subscriber website in another variant. Thus, the commerce data source may or may not be another party in the system.

FIG. 7 illustrates the operation of the example system employing the principles of the invention schematically defined in FIG. 6. Shown is a block **700** depicting a server. Also shown is a block **710**, which depicts at least one content provider. Typically, the server would include a parallel processing system, however, in this implementation it is not required. This system is preferred due to the lessened need for processing on the server.

A block **720** and a block **730** and a block **740** all represent commerce data sources. For the purposes of discussion, these commerce data sources will be referred to as "D", "E" and "F", respectively. Each commerce data source has a purchase site, which offers products, services and other goods for sale.

In this implementation, at least one subscriber website utilizes the server and for purposes of this description are denoted as a block **750**, and a block **760**. The subscriber websites will be referred to as SWS #1, and SWS #2, respectively. Each subscriber website includes an originating site where content or filtered content is displayed. At least one end user utilizes the originating site. The end users are denoted generally by the symbol "U" in FIG. 7. They are illustrated in



this implementation to be specific to the subscriber website. However, it is recognized that an end user can use several subscriber websites under the principles of the present invention. For this illustration or example only, SWS#1 includes an end user **751**, end user **752** and an end user **753**. SWS#2 includes  
5 an end user **761**, an end user **762**, and an end user **763**.

An illustrative operation of the example system illustrated in FIG. 7 is as follows. The end user enters a query at the subscriber website. The query is entered at the subscriber website and is transferred to the server where the server filters content using the profile it received from the subscriber website. The  
10 server may utilize key words to match the keywords with the content through a regular expression pattern matching process.

When the content is filtered to the specific profile of the subscriber website, the content is then automatically embedded with commerce tags or links to the commerce data sources. The filtered content containing the embedded tags is  
15 then presented to the subscriber website for review. Again, the subscriber website can edit the content, edit the commerce tags, or a combination of both. In editing the content, the subscriber website can accept, or reject filtered content or content that is being sent by the server. In addition, the subscriber website may have the capability of editing the content itself. For example, one implementation  
20 would be for the subscriber website to produce a brief synopsis from the filtered content.

The principles of the invention illustrated in FIG. 7 can be implemented in several ways. For example, several types of databases, either individually or in combination with each other, can be utilized in the system. Regardless of the implementation, the content is received by the server and filter to be sent to the  
5 subscriber website for review.

Additionally, in another variant, the content provider may include the subscriber website. In this variant the subscriber website provides content to the server for the server to filter and/or automatically embed commerce tags or links that the subscriber website desires to have incorporated into the content. Upon  
10 activation of the tags by the end user utilizing the subscriber website, the purchase site appears with the originating site of the subscriber website. Upon purchase or termination of the purchase site, the end user is back to the subscriber website and the originating site in which the tag was launched.

FIG. 8 shows an example of a graphical user interface display illustrating  
15 an application of one aspect of the present invention. Shown is a display that the end user using the subscriber website may observe. In the display is an underlying originating site that contains the filtered content and keywords with the commerce tags automatically embedded. If the end user desires to make a purchase, the end user may by simply clicking on the keyword in the text. The  
20 purchase site pops up in a separate window without the end user ever leaving the originating site. After the purchase is made, the end user automatically goes back

to the originating page. Thus, the end user does not have to go through layers of a purchase site to find the product or service the end user wishes to buy.

If the end user decides not to purchase, the pop up window may be closed and the end user is back at the originating page. It is understood that there are  
5 other variations that can be encompassed in this example by using the principles of the invention. Other variants may include different formats of the purchase site, different mechanisms to activate the link to the purchase site, and various modes of purchasing such as by credit or wire transfer. However, this example is only given for illustrative purposes and is not intended to limit the invention to this  
10 embodiment.

FIG. 9 shows another example of a graphical user interface display illustrating one aspect of the present invention. Shown in this figure is another format of the pop up window that displays the purchase site inside the originating site. Shown in this example is a side bar, which includes a listing of purchase  
15 sites that are available to the end user using the subscriber's website. The listing of purchase sites can be done by several means. Such means could include, but are not limited to, categories, price, size, flavor, date of manufacture, place of manufacture, rating, weight, volume, color, material, title, author, publisher, artist, and any other descriptive term which would assist the end user in making a  
20 purchase.

For example, if the end user entered a query on cars. Several local dealerships in the end users area could be listed as illustrated in FIG. 9. The

listing may be organized to categorize the purchase sites by the price of the car, year, make or model, engine size, or a combination of all of the features of the car.

FIG. 10 shows another example of a graphical user interface display illustrating one aspect of the present invention. In the figure mentioned above, it is conveyed that the key word can be other than textual related. The key word may be an object, image, audio or live recording or any other type of multimedia.

In the example given in FIG. 10, shown is a graphical display of a sporting event. The display may be a photo or a live or pre-recorded sporting event being played on the end user's computer. The end user may have an interest in purchasing the sports shirt. By the end user simply pointing and/or clicking to the shirt, the embedded link open a purchase site or list of purchase sites to purchase the shirt on-line. Alternatively, the end user may use other types of commands to activate the link. Such commands include, but are not limited to, voice activated commands, eye movement recognition sensors, and any other known command controllers. Once the purchase is completed or terminated, the end user returns to the originating site to continue viewing. Again, the purchase site is allowed to appear within the originating site. This feature allows the end user to avoid scrolling though pages of a website to get back to where the end user originally started.

It is understood that the above description is only representative of illustrative examples of embodiments and implementations. For the reader's

convenience, the above description has focused on a representative sample of all possible embodiments, a sample that teaches the principles of the invention.

Other embodiments may result from a different combination of portions of different embodiments. The description has not attempted to exhaustively enumerate all

5 possible variations.

Alternate embodiments may not have been presented for a specific portion of the invention. Some alternate embodiments may result from a different combination of described portions, or other undescribed alternate embodiments may be available for a portion. This is not to be considered a disclaimer of those

10 alternate embodiments. It is recognized that many of those undescribed embodiments are within the literal scope of the following claims, and others are equivalent.

What is claimed is:

- 1 1. A method for modifying content with links between key words and  
2 WebPages, the method comprising:  
3 receiving content;  
4 receiving at least one key word and a WebPage location associated with  
5 the key word;  
6 finding instances of the key word in the content;  
7 creating at least one link between the instances of the key word in the  
8 content and the WebPage associated with the key word; and  
9 presenting the content with the link.
- 1 2. A method for automatically embedding links, comprising:  
2 (a) receiving content at a server from at least one content provider;  
3 (b) automatically embedding the content through the server with at least  
4 one link to at least one commerce data source; and  
5 (c) transmitting the content with the link.
- 1 3. The method of claim 2, further including custom filtering the content at the  
2 server for at least one subscriber website.
- 1 4. The method of claim 2, wherein the content includes at least one of a text,  
2 an image, an acoustic recording, a live recording, an audio-visual image, or  
3 multimedia.

1 5. The method of claim 2, wherein the content transmitting further includes  
2 selectively choosing by a subscriber website the content to put on an originating  
3 site of the subscriber website.

1 6. The method of claim 2, further including embedding by a subscriber  
2 website other content on an originating site of the subscriber website with  
3 commerce tags.

1 7. The method of claim 2, wherein the link includes a commerce tag in  
2 Hypertext Markup Language (HTML) format.

1 8. The method of claim 2, further comprising receiving key words and  
2 purchase site locations of the commerce data sources.

1 9. A method of modifying content with links, comprising:

2 (a) downloading content at a server from at least one content  
3 provider;

4 (b) custom filtering the content at the server for a subscriber  
5 website, the subscriber website having an originating site to display the filtered  
6 content;

7 (c) automatically embedding the content by the server with at  
8 least one link to at least one commerce data source;

9 (d) selecting by the subscriber website the content that will be  
10 placed on the originating site prior to viewing from an end user; and

11 (e) displaying by the subscriber website the content with the link  
12 to the end user without leaving the originating site.

1 10. The method of claim 9, wherein content filtering further includes filtering  
2 content through a parallel processing system.

1 11. The method of claim 9, wherein the link to the commerce data source is  
2 through the server.

1 12. The method of claim 9, wherein the link to the commerce data source is  
2 through the subscriber website.

1 13. The method of claim 9, further including creating a pop up window inside  
2 the originating site to allow purchasing at the commerce data source without  
3 leaving the originating site.

1 14. A method for automatically embedding links, comprising:

2 (a) receiving content at a server from at least one content provider;

3 (b) receiving a custom designed profile for at least one subscriber  
4 website having an originating site;

5 (c) filtering the content through the server;

6 (d) automatically embedding the filtered content with at least one link to  
7 at least one commerce data source; and

8 (e) transmitting the filtered content with the link to the subscriber  
9 website for review.



- 1 15. The method of claim 14, wherein the content filtering further includes  
2 matching the custom designed profile of the subscriber website with the content.
- 1 16. The method of claim 14, wherein the content embedding further includes  
2 creating a link between a key word and the commerce data source.
- 1 17. The method of claim 14, further includes creating a pop up window inside  
2 the originating site, the pop up window containing a purchase site of the  
3 commerce data source which is responsive to the link.
- 1 18. The method of claim 14, wherein the content provider is the commerce  
2 data source.
- 1 19. The method of claim 14, further including transmitting the link in a  
2 customizable format in accordance with the subscriber website.
- 1 20. The method of claim 19, wherein the link presentation further includes  
2 displaying at least one purchase site in a pop up window within the originating site  
3 by a feature of a product offering on the purchase site.
- 1 21. A method for automatically embedding links, comprising:  
2 (a) receiving a multimedia data file at a server from at least one  
3 multimedia provider;  
4 (b) receiving a custom designed profile for at least one subscriber  
5 website having an originating site;

- 6 (c) matching the profile with the multimedia data file;
- 7 (d) filtering the multimedia data file through the server;
- 8 (e) automatically embedding the filtered multimedia data file with at
- 9 least one link to at least one commerce data source; and
- 10 (f) transmitting the filtered multimedia data file with the link to the
- 11 subscriber website for review.

- 1 22. A method for automatically embedding links, comprising:
- 2 (a) receiving a custom designed profile for developing key words at a
- 3 server for at least one subscriber website having an originating site;
- 4 (b) receiving at least one purchase site location of at least one
- 5 commerce data source;
- 6 (c) comparing and matching content of at least one content provider to
- 7 the key words;
- 8 (d) automatically embedding the matched content with at least one link
- 9 to the purchase site; and
- 10 (e) transmitting the matched content with the link to the subscriber
- 11 website for review.

- 1 23. The method of claim 22, wherein the developing key words further includes
- 2 developing at least one of a textual object, an image, an object, a word, a

3 character, an acoustic recording, a live recording, an audio-visual image, or  
4 multimedia.

1 24. The method of claim 22, further including selecting by the subscriber  
2 website which commerce data source is linked with the matched content.

1 25. The method of claim 22, further including displaying the purchase site with  
2 the originating site of the website subscriber.

1 26. A method for automatically embedding links, comprising:

2 (a) receiving a custom designed profile for developing key words at a  
3 server for at least one subscriber website having an originating site;

4 (b) receiving at least one purchase site location of the subscriber  
5 website;

6 (c) comparing and matching content of at least one content provider to  
7 the key words;

8 (d) automatically embedding the matched content with at least one link  
9 to the purchase site; and

10 (e) transmitting the matched content with the link to the subscriber  
11 website for review.

1 27. The method of claim 26, further including displaying the purchase site with  
2 the originating site of the website subscriber.

- 1 28. A method for automatically embedding links, comprising:
- 2 (a) receiving content from at least one subscriber website having an
- 3 originating site;
- 4 (b) receiving at least one purchase site location of a commerce data
- 5 source;
- 6 (c) automatically embedding the content with at least one link to the
- 7 purchase site; and
- 8 (d) transmitting the content with the link to the subscriber website for
- 9 review.

- 1 29. A method for automatically embedding links, comprising:
- 2 (a) receiving content at a server from at least one subscriber website
- 3 having an originating site;
- 4 (b) receiving at least one purchase site location of the subscriber
- 5 website;
- 6 (c) automatically embedding the content with at least one link to the
- 7 purchase site; and
- 8 (d) transmitting the content with the link to the subscriber website for
- 9 review.

1 30. The method of claim 29, further including developing at least one key word  
2 at the server to act as the link to the purchase site.

1 31. A method for automatically embedding links, comprising:  
2 (a) receiving content at a server from at least one content provider;  
3 (b) receiving at least one subscriber website having an originating site;  
4 (c) filtering the content through the server by means of specific requests  
5 from the subscriber website; and  
6 (d) automatically embedding the filtered content with at least one link to  
7 at least one commerce data source for allowing the subscriber website to present  
8 a purchase site while still in the originating site.

1 32. A method for automatically embedding links, comprising:  
2 (a) receiving content at a server from at least one content provider;  
3 (b) receiving key words from at least one subscriber website having an  
4 originating site;  
5 (c) filtering the content through the server based on the key words;  
6 (d) automatically embedding the key words in the filtered content with at  
7 least one link to at least one commerce data source for allowing the subscriber  
8 website to present a purchase site while still in the originating site.

1 33. The method of claim 32, wherein the link embedding further includes  
2 embedding commerce tags to link the filtered content to a purchase site of the  
3 subscriber website.

1 34. The method of claim 32, wherein the content receiving further includes  
2 receiving content from the subscriber website for being automatically embedded  
3 with commerce tags.

1 35. The method of claim 32, wherein the link embedding further includes  
2 embedding by the subscriber website commerce tags to the filtered content.

1 36. A method for automatically embedding links, comprising:

2 (a) receiving content containing documents with an original link coded  
3 in a Hypertext Markup Language (HTML) format at a server from at least one  
4 content provider;

5 (b) receiving key words from at least one subscriber website having an  
6 originating site;

7 (c) filtering the content through the server based on the key words;

8 (d) automatically embedding at least one new link to the key words in  
9 the filtered content to at least one commerce data source for transmitting a  
10 purchase site in the originating site.

1 37. The method of claim 36, wherein the new link embedding further includes  
2 altering at least one of the position or content of the original embedded link.

1 38. A method for automatically embedding links, comprising:  
2 (a) receiving content at a server from at least one content provider;  
3 (b) receiving key words from at least one subscriber website having a  
4 Java based application at an originating site;  
5 (c) filtering the content through the server based on the key words;  
6 (d) automatically embedding the key words in the filtered content with at  
7 least one link to at least one commerce data source for displaying a purchase site  
8 in the originating site.

1 39. The method of claim 38, further including altering by the subscriber website  
2 the embedded link through the Java based application.

1 40. A method for automatically embedding links, comprising:  
2 (a) receiving content at a server from at least one content provider;  
3 (b) receiving a custom designed profile for at least one subscriber  
4 website having an originating site;  
5 (c) filtering the content through the server; and  
6 (d) automatically embedding the filtered content with at least one link to  
7 at least one commerce data source.

1 41. A method for automatically embedding links, comprising:  
2 (a) receiving content at a server from at least one content provider;

3 (b) receiving a custom designed profile for at least one subscriber  
4 website having an originating site;

5 (c) filtering the content through the server by means of the profile from  
6 the subscriber website; and

7 (d) automatically embedding the filtered content with at least one link to  
8 at least one commerce data source for displaying a purchase site while still in the  
9 originating site.

1 42. A method for utilizing automatically embedding links by a content provider,  
2 comprising:

3 (a) sending content to a server that automatically embeds links into  
4 content;

5 (b) filtering the content by the server to meet the needs of a specific  
6 subscriber website having an originating site;

7 (c) permitting the server to automatically embed the content with at  
8 least one link to at least one commerce data source; and

9 (d) displaying the filtered content on the originating site with the  
10 embedded link.

1 43. The method of claim 42, wherein the link embedding further includes  
2 providing a link to a purchase site of the content provider.

1 44. The method of claim 42, wherein the content sending further includes  
2 sending content with pre-existing links.



1 45. The method of claim 44, further including altering the pre-existing links by  
2 the server.

1 46. The method of claim 42, wherein the content sending further includes  
2 sending multimedia and linking the commerce data source into the multimedia.

1 47. A method for using automatically embedding links by a subscriber website,  
2 comprising:

3 (a) sending to a server a custom designed profile for at least one  
4 subscriber website having an originating site;

5 (b) filtering the content by the server by using the profile;

6 (c) automatically embedding the filtered content by the server with at  
7 least one link to at least one commerce data source; and

8 (d) receiving the filtered content containing the link.

1 48. The method of claim 47, further including reviewing and selecting the  
2 filtered content for viewing by an end user on the originating site.

1 49. The method of claim 47, wherein the profile sending further includes  
2 sending key words to the server.

1 50. The method of claim 47, wherein the link embedding further includes  
2 providing links to a purchase site of subscriber website.

1 51. The method of claim 47, further including at least one of embedding links,  
2 deleting links, or altering links at the subscriber site.

1 52. The method of claim 47, further including transmitting the filtered content  
2 with the embedded link to an end user.

1 53. The method of claim 47, further including selectively choosing the  
2 commerce data source to be presented on the originating site.

1 54. A method for using automatically embedding links by a commerce data  
2 source, comprising:

3 (a) providing at least one location to at least one purchase site;

4 (b) receiving the location by a server to automatically embed the  
5 locations through a link in filtered content; and

6 (d) transmitting by a server the filtered content to be displayed on a  
7 originating site with the embedded link.

1 55. The method of claim 54, further including providing key words to server.

1 56. The method of claim 54, further including allowing the purchase site to be  
2 displayed while originating site is displayed.

1 57. A method for utilizing automatically embedding links by an end user,  
2 comprising:

- 3           (a)     logging on to a subscriber site having filtered content that was  
4     automatically embedded with a link to at least one purchase site;  
5           (b)     entering a query; and  
6           (c)     retrieving filtered content on an originating site in response to the  
7     query.

1     58.     The method of claim 57, further including displaying the originating site with  
2     the embedded link.

1     59.     The method of claim 57, further including making a purchase on the  
2     purchase site.

1     60.     The method of claim 57, further including closing the purchase site and  
2     automatically returning to originating site.

1     61.     A system for providing automatically embedded links, comprising:  
2                 a database having embodied therein data relating to content and  
3     profiles of at least one subscriber site ;  
4                 a processor in communication with the database and configured to  
5     match the profile with the content to provide filtered content to the subscriber site  
6     and provide automatic embedding of links into the filtered content to at least one  
7     commerce data source ; and  
8                 a link connecting the processor to the subscriber site .

1 62. The system of claim 61, further comprising a link connecting the processor  
2 to a parallel processing system for performing the filtering function.

1 63. The system of claim 61, wherein the profile further includes key words.

1 64. A system for providing automatically embedded links, comprising:  
2 means for receiving content at a server;  
3 means for filtering the content based on pre-established criteria from  
4 a subscriber site; and  
5 means for automatically embedding the filtered content with links to  
6 at least one commerce data source.

1 65. A computer readable medium for use in automatically embedding links in  
2 filtered content , comprising:

3 an instruction code for receiving content;  
4 an instruction code for filtering content based on a pre-  
5 established criteria from a subscriber site; and  
6 an instruction code for automatically embedding the filtered  
7 content with at least one link to a commerce data source.

1 66. A method for modifying content with links between key words and  
2 WebPages, the method comprising:  
3 receiving content;

4           receiving at least one key word and a WebPage location associated with  
5   the key word;  
6           finding instances of the key word in the content;  
7           creating at least one link between the instances of the key word in the  
8   content and the WebPage associated with the key word;  
9           storing the content with the link; and  
10          transmitting the stored content with the link.

1   67.   A method for automatically embedding links, comprising:

- 2           (a)   receiving content at a server from at least one content provider;  
3           (b)   automatically embedding the content through the server with at least  
4   one link to at least one commerce data source;  
5           (c)   storing the content with the link; and  
6           (d)   transmitting the content with the link.

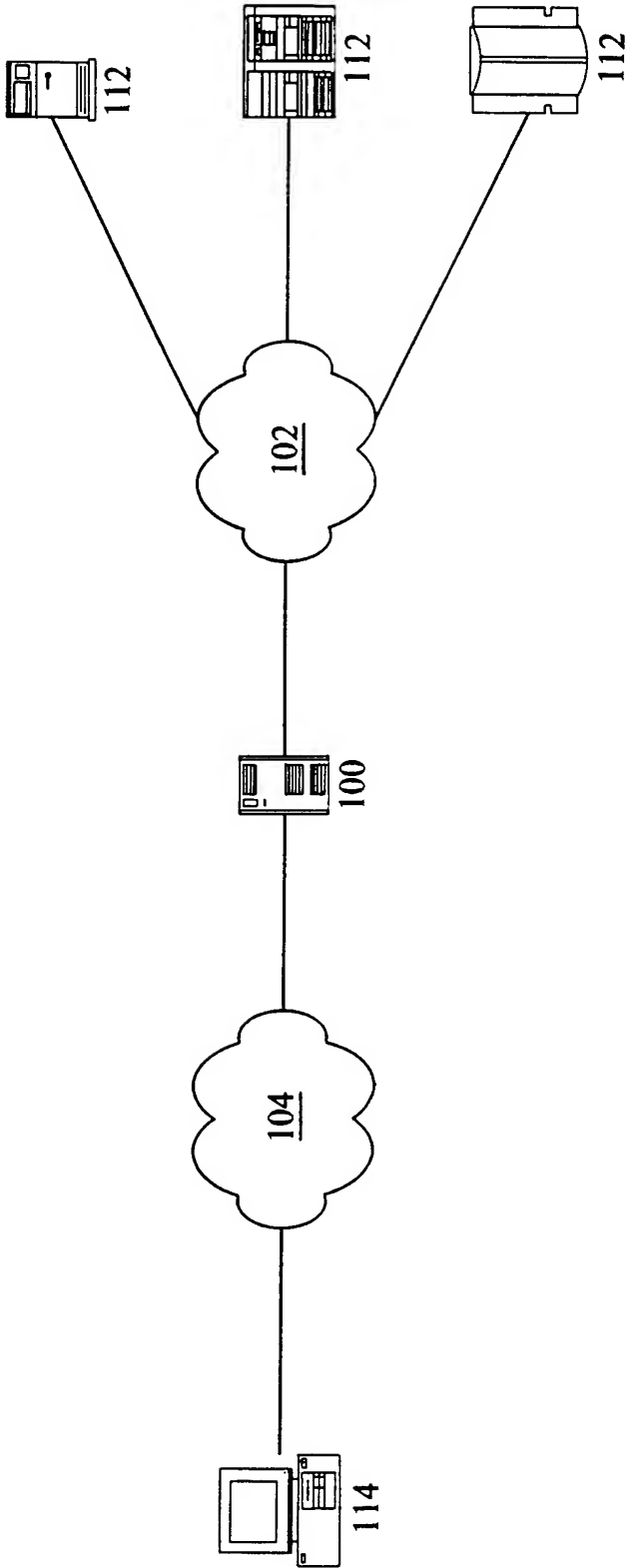


FIG. 1

2/10

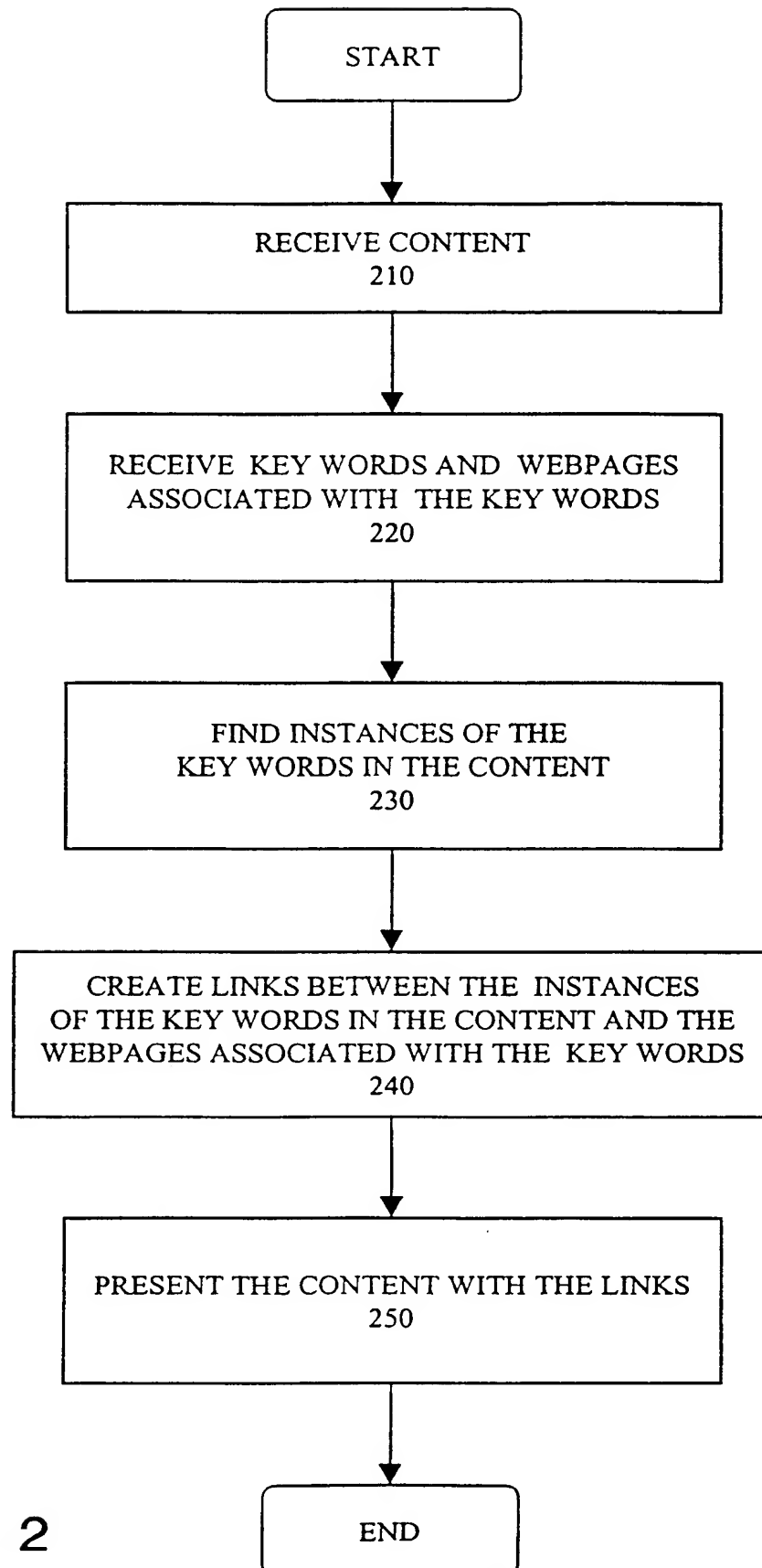


FIG. 2

3/10

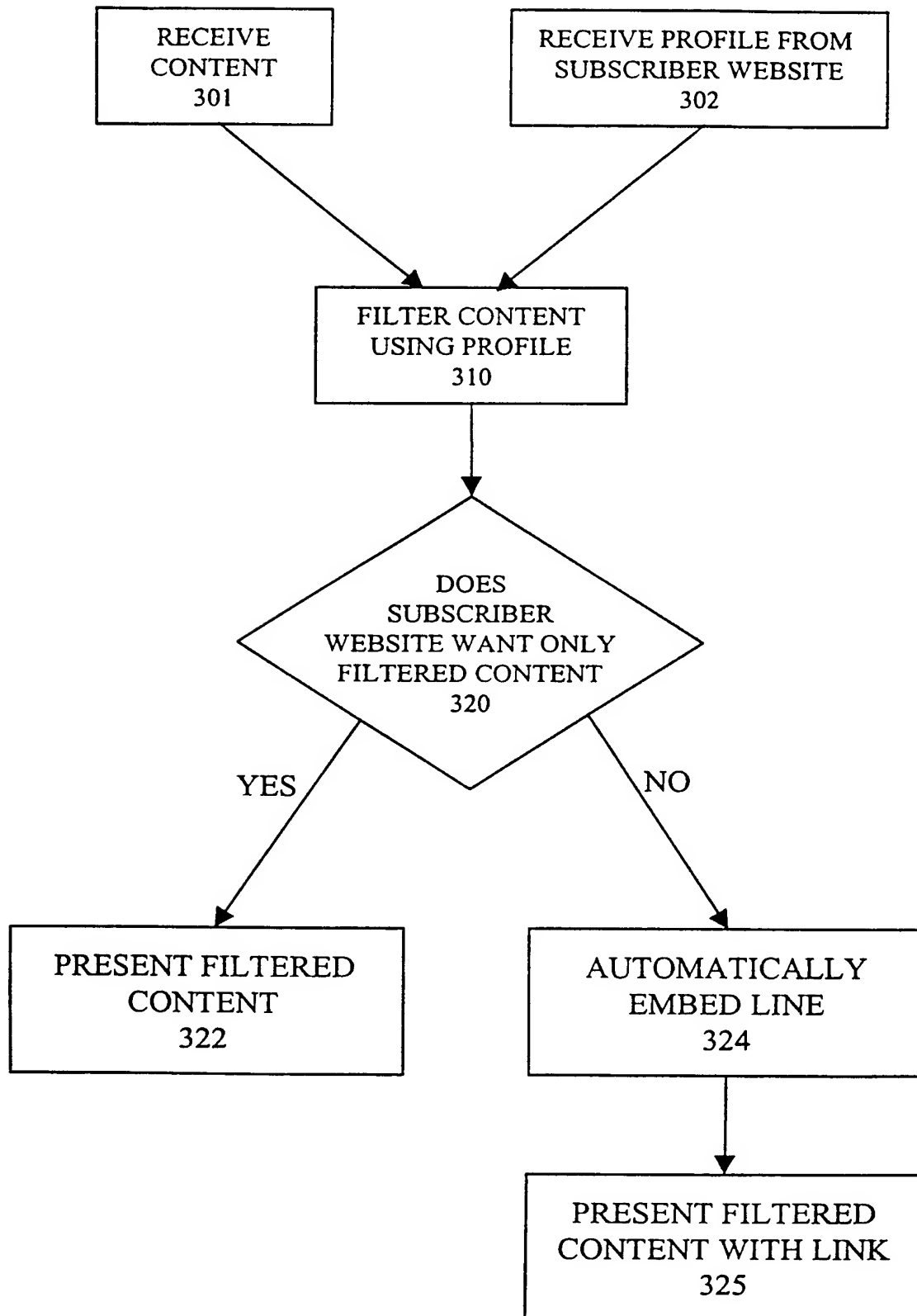


FIG. 3



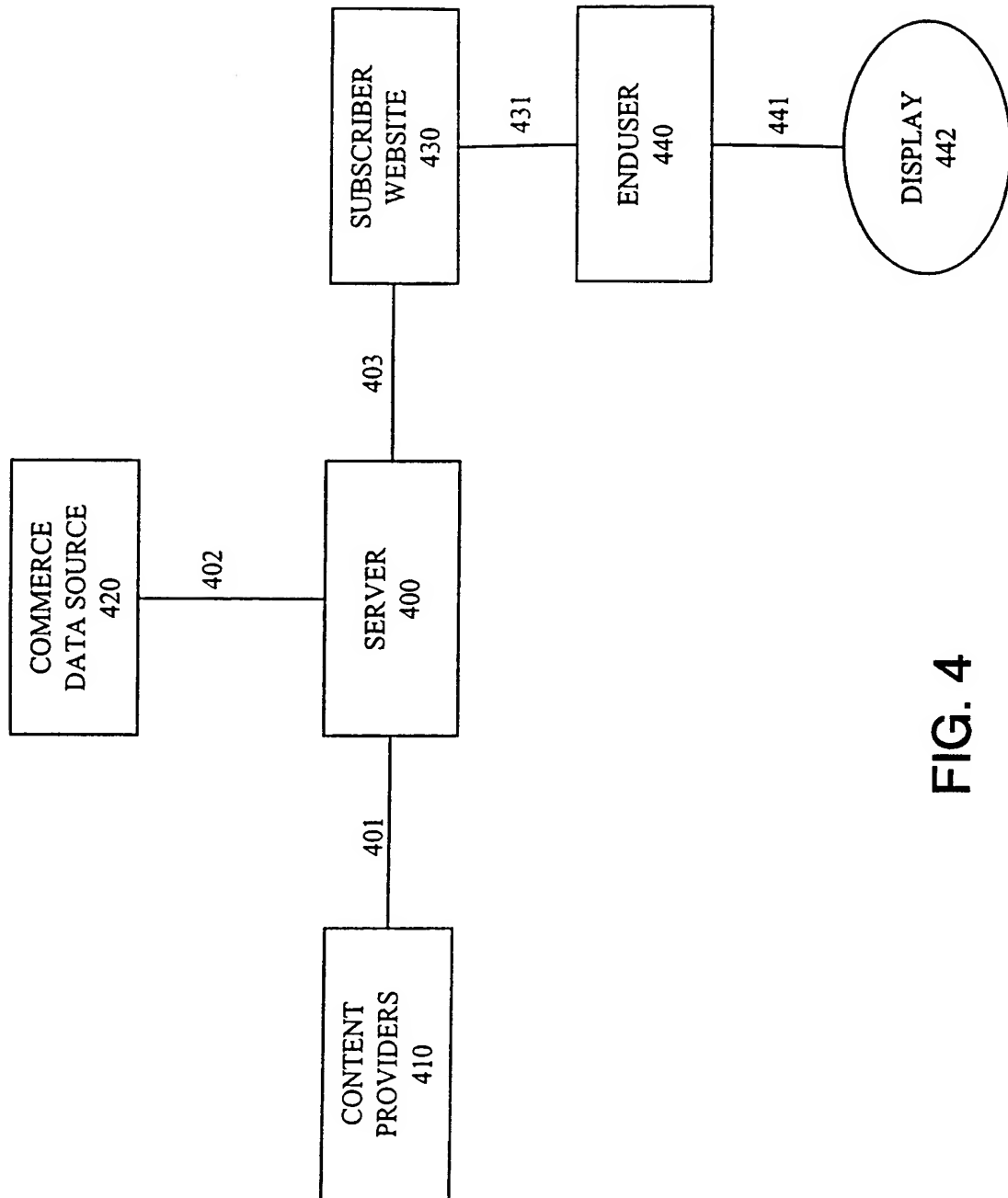


FIG. 4

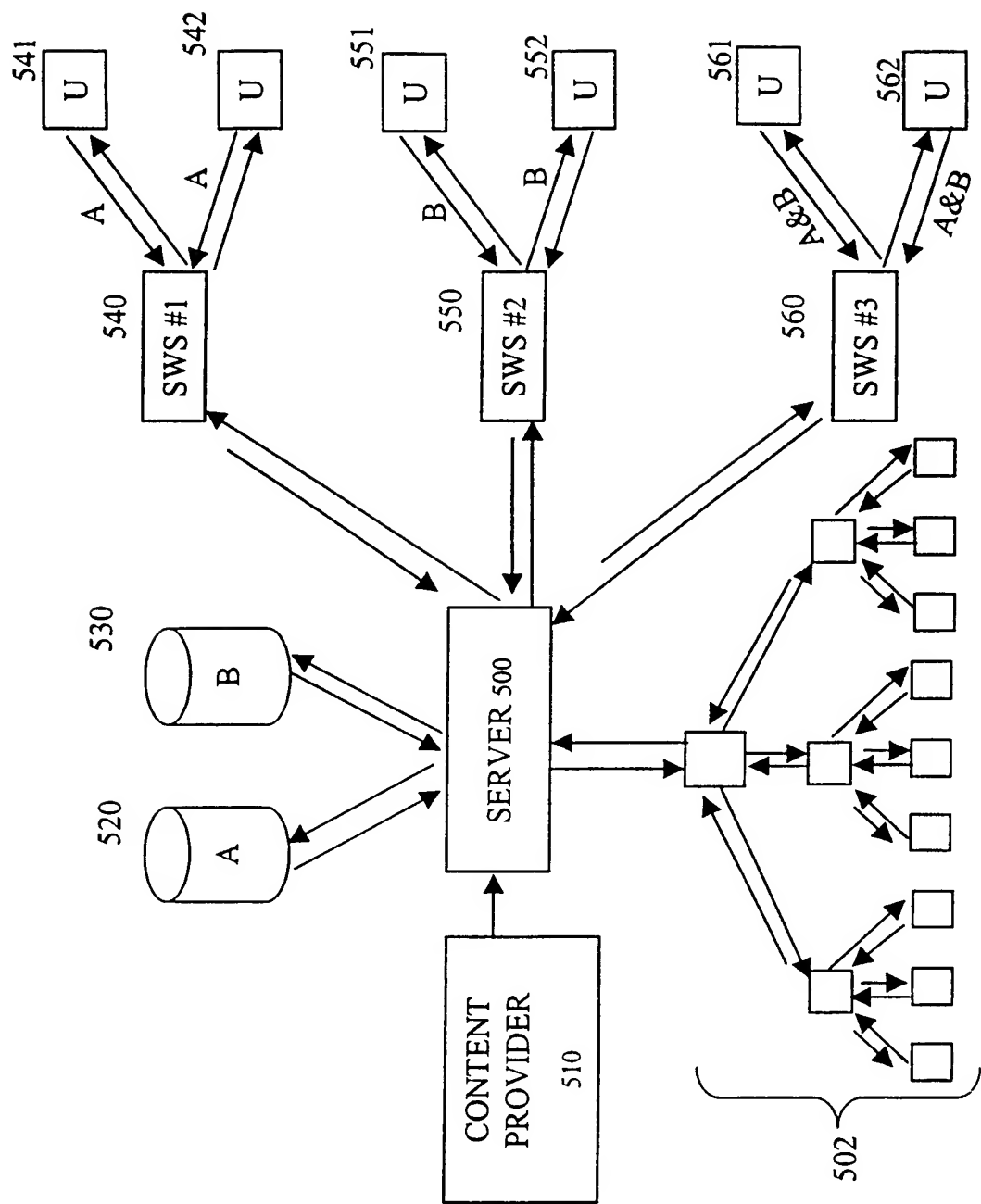


FIG. 5

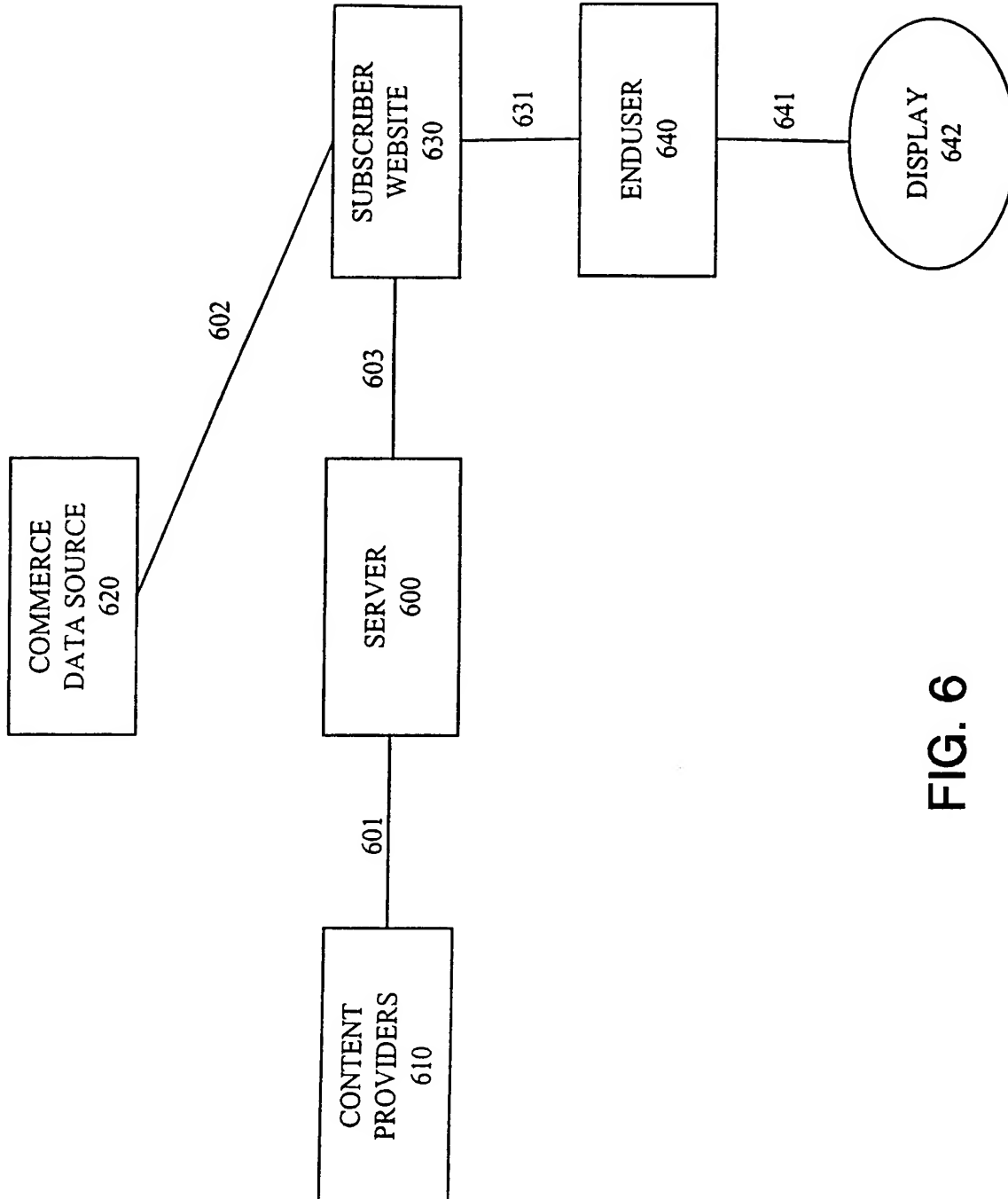


FIG. 6

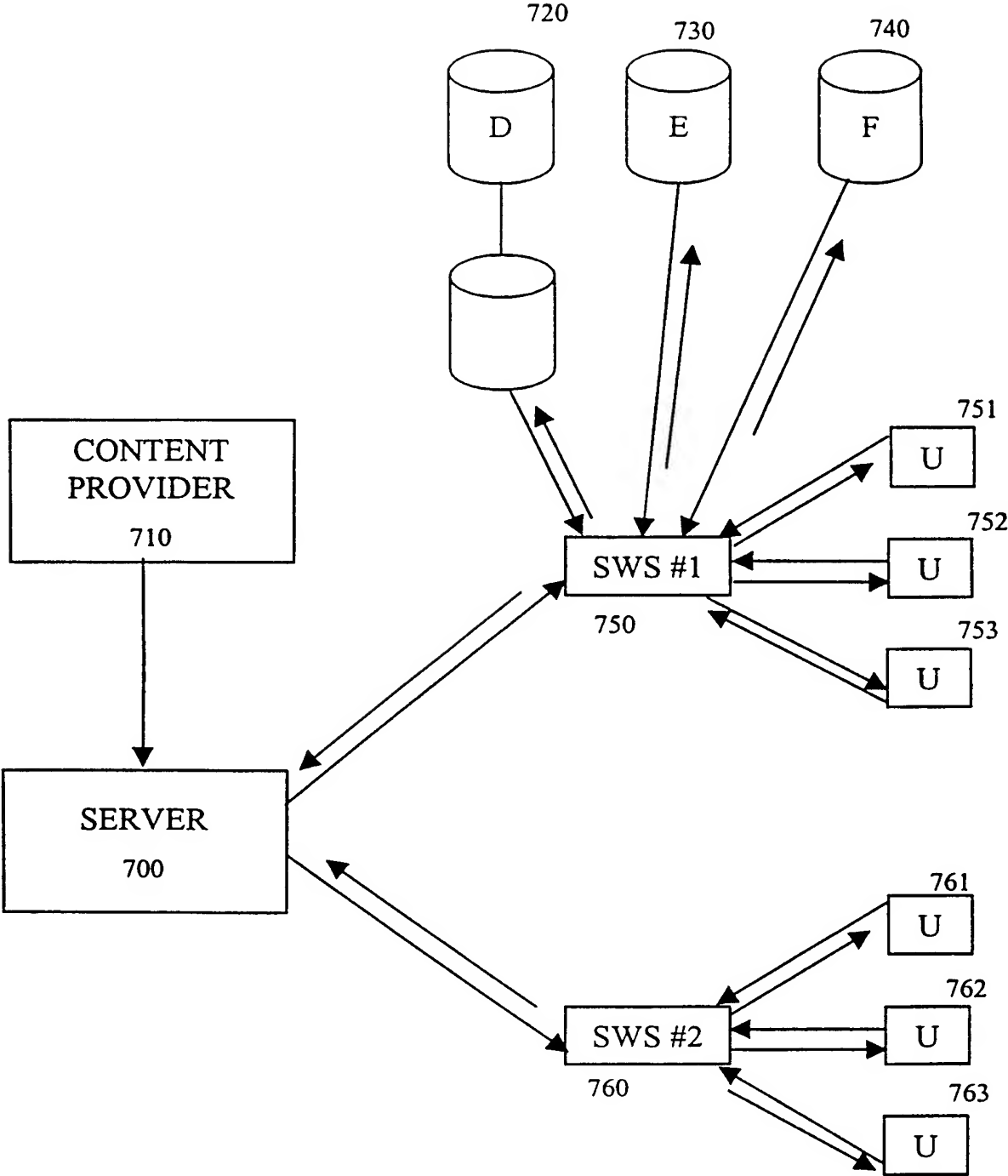


FIG. 7

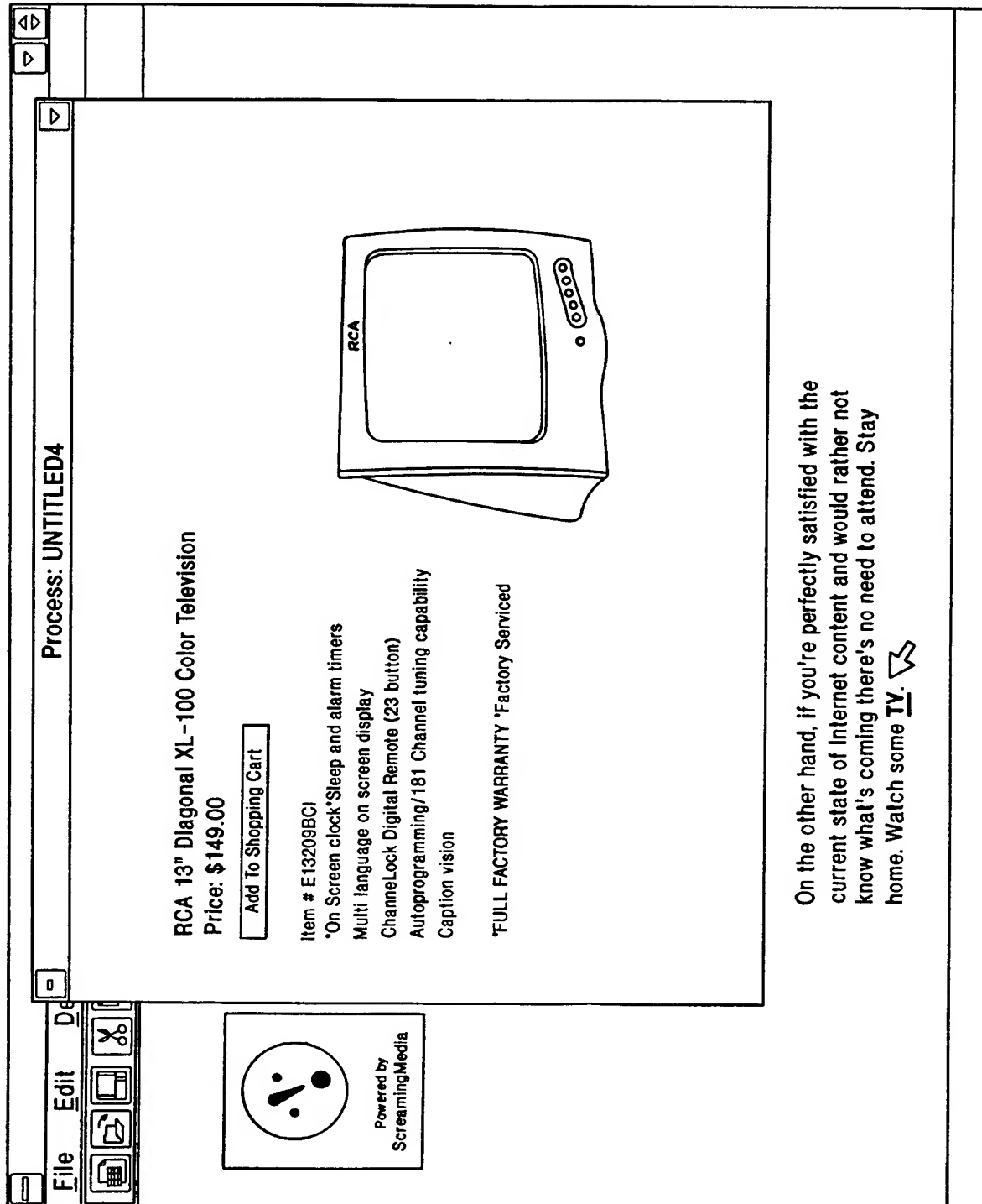


FIG. 8

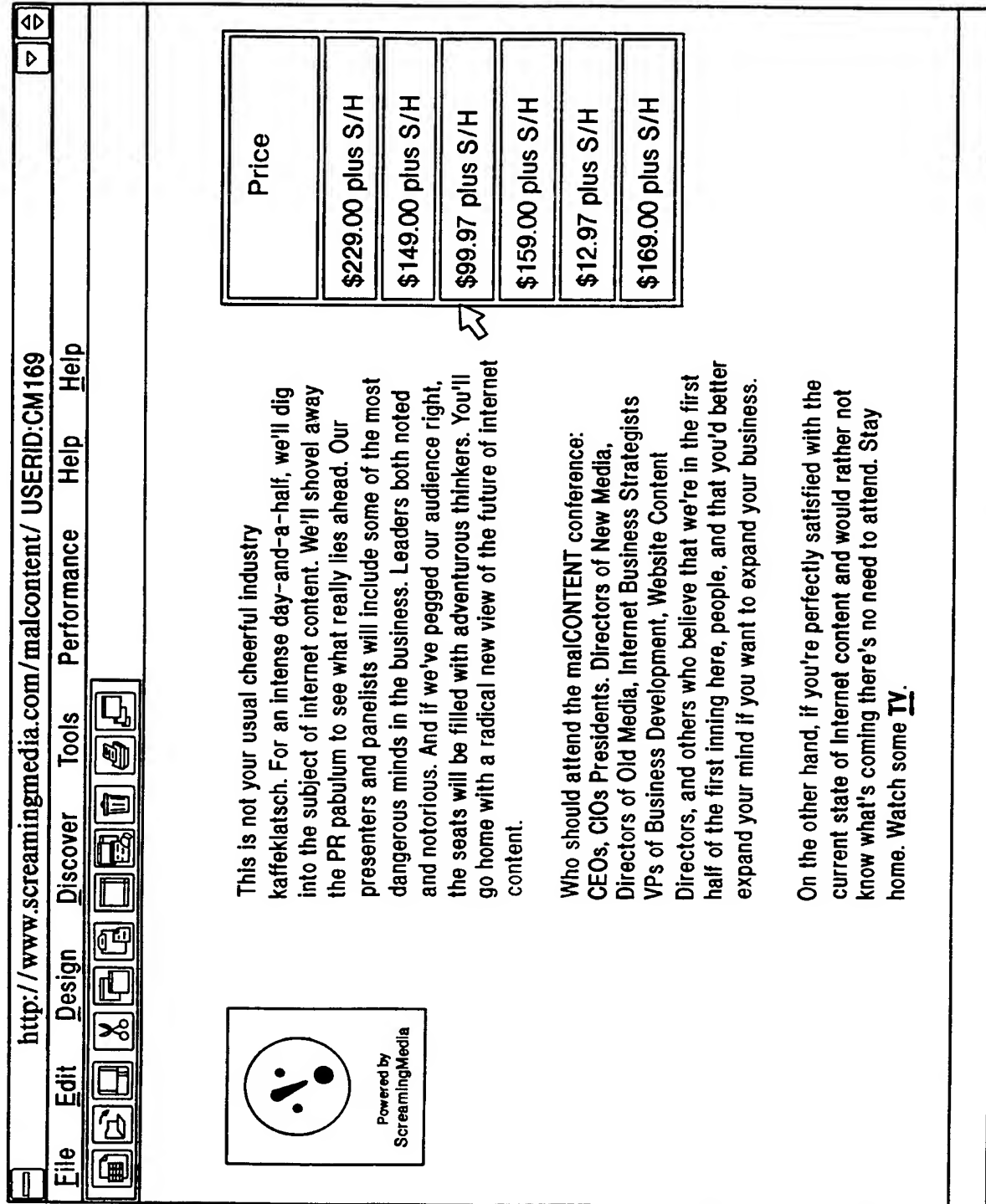


FIG. 9

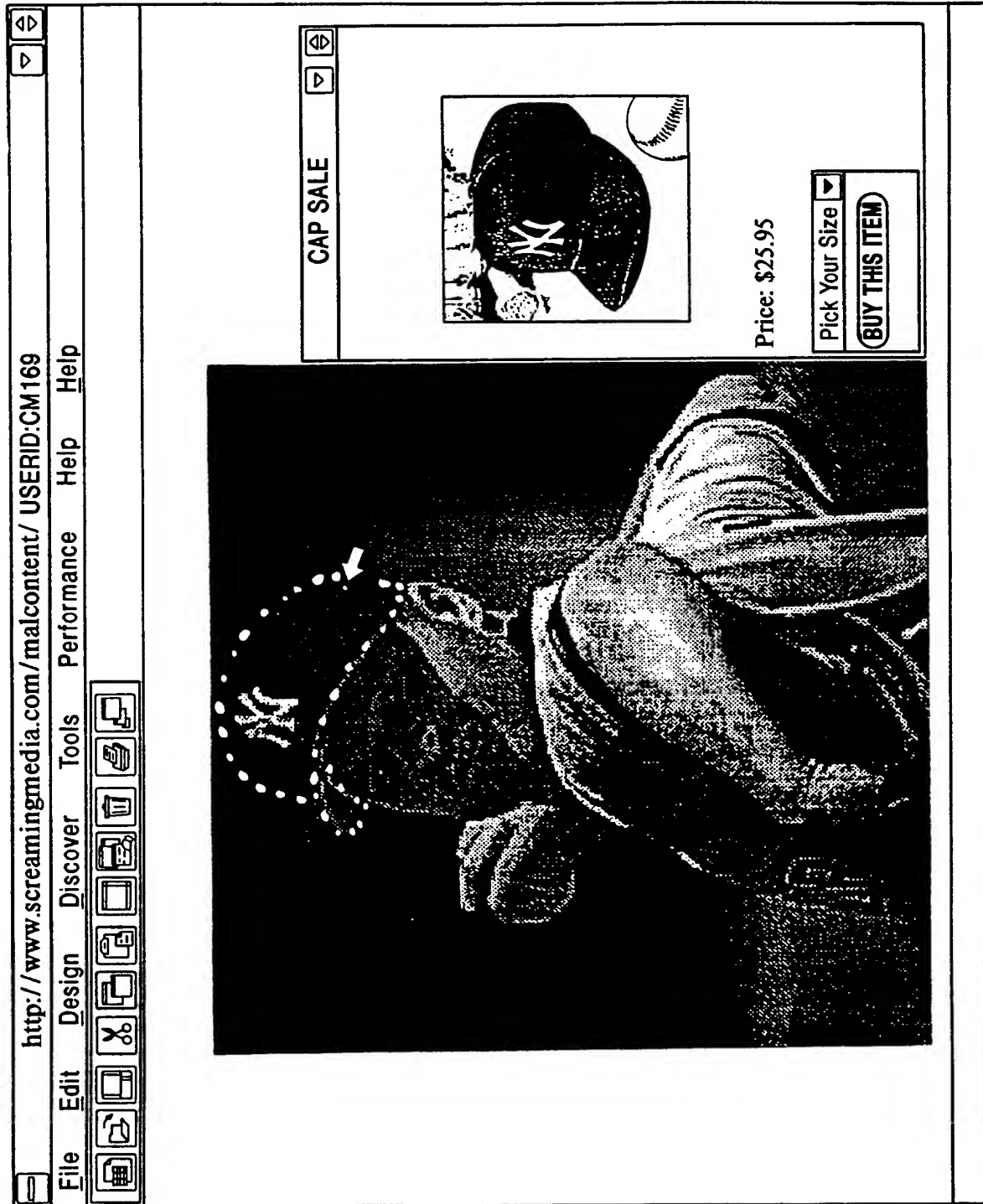


FIG. 10

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/11025

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/30

US CL : 707/1, 3, 4, 10, 104; 709/206, 218.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 707/1, 3, 4, 10, 104; 709/206, 218.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST

Search terms: WebPages, links, key words, server, embedded links, subscriber, website, image, multimedia, HTML.

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,862,325 A (REED et al) 19 January 1999, col. 4, lines 2-43, col. 5, lines 4-14, col. 7, lines 1-11, col. 15, lines 23-62, col. 18, lines 52-67, col. 19, lines 1-47, col. 24, lines 21-67, col. 25, lines 1-14, col. 26, 46-67, col. 27, lines 1-52, col. 28, 39-67, col. 29, lines 1-41, col. 35, lines 11-39, col. 36, lines 1-6, col. 49, lines 40-54, col. 53, lines 30-46, col. 54, lines 47-64, col. 63, lines 5-67, col. 64, lines 1-4, col. 77, lines 15-29, col. 78, lines 29-42, col. 89, lines 14-58, col. 103, lines 2-67, col. 104, lines 1-6, col. 119, lines 45-67, col. 120, lines 1-67, col. 121, lines 1-67, and col. 122, lines 1-25.	1-67

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be of particular relevance	*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*E* earlier document published on or after the international filing date	*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*A* document member of the same patent family
*O* document referring to an oral disclosure, use, exhibition or other means	
*P* document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

11 JULY 2000

Date of mailing of the international search report

29 AUG 2000

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/11025

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,855,015 A (SHOHAM) 29 December 1998, col. 1, lines 30-50, col. 2, lines 6-67, col. 3, lines 1-10 and lines 28-60, col. 6, lines 10-16, col. 8, lines 32-53, col. lines 26-60, col. 11, lines 1-67, col. 12, lines 1-65, and col. 16, lines 41-45.	1-67
Y	US 5,796,393 A (MACNAUGHTON et al) 18 August 1998, col. 1, lines 36-49, col. 2, lines 3-33, col. 4, lines 6-18, col. 6, lines 25-63, col. 7, lines 34-47, col. 11, lines 34-45, col. 12, lines 33-67, col. 13, lines 1-65, col. 14, lines 1-65, col. 15, lines 1-4, col. 19, lines 40-55, col. 21, lines 1-26, and col. 23, lines 14-17.	1-67